



राष्ट्रीय प्रोद्योगिकी संस्थान दुर्गापुर  
NATIONAL INSTITUTE OF TECHNOLOGY DURGAPUR  
MAHATMA GANDHI AVENUE, DURGAPUR-713209  
(West Bengal), INDIA, [www.nitdgp.ac.in](http://www.nitdgp.ac.in)

An Autonomous Institution of the Govt. of India under Ministry of Education (Shiksha Mantralaya)  
Ref: NITD/EST/National Flag/05/22 Date: 27.09.2022

## **e-Tender Notice For**

**Supply, Installation, Commissioning & Testing of  
30.5 Mtr Flag Mast suitable for 180 KM/HR wind  
speed complete for 30 ft x 20 ft size Tri color  
National Flag at NIT Durgapur campus, West  
Bengal, India.**

E-tenders are invited from the Companies who are manufacturer or their authorized dealers or contractors of an OEM for the work of SICT of 30.5 Mtr Flag Mast suitable for 30 ft x 20 ft size Tri color National Flag at NIT Durgapur campus, West Bengal, India.

Sl. No.	Name of Work	EMD in ₹	Time Period
01	Supply, Installation, Commissioning & Testing of 30.5 Mtr Flag Mast suitable for 180 KM / HR wind speed compete for 30ft X 20 ft size Tri color National Flag.	50000.00	03 months

**Schedule:**

Name of Organization	<b>National Institute of Technology</b>
Tender Type (Open/Limited/EOI/Auction/Single)	Open
Tender Category (Services/Goods/works)	Works
Type/Form of Contract (Work/Supply/Auction/Service/Buy/Empanelment/ Sell)	Supply
Source of Fund (Institute/Project)	Institute
Is Multi Currency Allowed	NO
Date of Issue/Publishing	27/09/2022
Document Download/Sale Start Date	27/09/2022
Date for Pre-Bid Conference	12/10/2022 (11.00 Hrs)
Venue of Pre-Bid Conference	Estate Section, NIT Durgapur
Last Date and Time for Uploading of Bids	19/10/2022 (18.00 Hrs.)
Date and Time of Opening of Technical Bids	20/10/2022 (11.00 Hrs.)
Tender Fee	Rs. NIL /-
EMD	INR 50000/-
No. of Covers (1/2/3/4)	02
Bid Validity days (180/120/90/60/30)	90 days (From last date of opening of tender)
Address for Communication	Shri A. K. Bhagat, Security Officer & I/C Estate Section, National Institute of Technology, Durgapur M. G. Avenue. Durgapur -713209, West Bengal. INDIA
Contact No.	03432759215
Email Address	<a href="mailto:estatehelpdesk@admin.nitdgp.ac.in">estatehelpdesk@admin.nitdgp.ac.in</a>
ITI Helpdesk Contact No. and mail address	Helpdesk Number-011-4960 6060 <a href="mailto:ewizardhelpdesk@gmail.com">ewizardhelpdesk@gmail.com</a> Mr. SK Tariq- 9355030608 <a href="mailto:epochelpdesk.35@gmail.com">epochelpdesk.35@gmail.com</a> Mr. Saikat Pal – 8927976198 <a href="mailto:epochelpdesk.38@gmail.com">epochelpdesk.38@gmail.com</a>

**Tender document and other terms and conditions are available at <https://mhrd.euniwizarde.com> and [www.nitdgp.ac.in](http://www.nitdgp.ac.in) .**

Signature & Seal of the bidder

Contd.....P/3

**Terms and Conditions:**

1. Pre – qualification: Bidder should be Manufacturer or Authorized dealer/ contractor of an OEM. Bidder should supply Material from an OEM and the proof of OEM should be enclosed. OEM itself should have own experience for designing, manufacturing and supplying of minimum 05 Flag mast with minimum height 30.5 Mtr. Manufacturer should have valid ISO 9001, ISO 14001, OSHAS 18001, ISO 3843 certificate for their manufacturing plant.
2. The bidder should not have abandoned any work under Government of India or Govt. of West Bengal / undertaking / Institutions nor any contract awarded to them has been rescinded, during last five years prior to the date of this bid.
3. The bidder should not have any legal case on him or should not had been involved in any litigation / enquiry for similar work under Government of India / state or any Govt. organization.
4. All the bidders will submit the list of similar works executed in a separate envelop. **Any offer without having executed minimum five similar works i.e 30.5 high mast shall not be considered & such financial bids will not be opened.**
5. Detailed specifications of all the items have been furnished in the B.O.Q against which rates are to be quoted by the bidders. Quantities taken in the BOQ are apex and can be increased or decrease or scope of the work can also be changed. No claim on this account shall be entertained.
6. Earnest money of the unsuccessful bidders shall be refunded after the allotment of work. Earnest money of the lowest bidder shall be refunded after successful completion of the work.
7. Subletting the work after its award is not permissible.
8. The bid shall be accompanied by **Earnest Money of ₹ 50000.00 (Rupees Fifty Thousand Only)** in the form of **Demand Draft** from any Nationalized Bank, in favour of the “NIT Durgapur” or Online mode available in the e-tender portal.
9. The conditional tenders will not be accepted.

10. The quoted rates shall include components related to labour laws. The contractor has to abide by all the labour laws and to deposit due amounts under these laws already covered in the quoted rates.

11. The Tender Allotment committee reserves the right to accept or reject any or all the tenders without assigning any reason.

12. Noncompliance of instructions of the authorities of the Institute or delay in completion of the assigned work or non-removal of defects in time; the Institute shall be free to get the job done or get the defects rectified through any other agency at the risk and cost of the contractor.

13. The work shall be completed within 3 **months** from the date of issue of approval of drawing.

14. The contractor shall be responsible for any damage caused to any property of the campus and make good all such damages at his own cost.

15. In the event of any accident during the course of work which may result in any injury to a work man; the responsibility of their medical treatment will fully rest with the contractor and the University shall not be liable in any way. Adequate safety measures must be ensured during the entire work.

16. The work includes the foundation of the Pole. The bidder will get the bearing capacity tested, before designing the foundation. The design calculation & structural drawing shall also be supplied by the bidder. The design can be got rechecked by the Institute & if there is any expenditure on this account the same shall be borne by the bidder.

17. Bids not fulfilling all or any of the above conditions or incomplete, in any respect are liable to rejection.

18. Security deposit to the amount 7% of the bid amount will remained be deposited for one calendar year and be refunded after completion of that year. Concern agency must be complied with the warranty / guarantee period else security deposit may be forfeited.

19. Quoted price shall be inclusive of GST and all statutory deduction, freight charges etc.

20. PAN, AADHAAR No., Valid Trade License, GST Number are to be mentioned with attached copies.

21. Experience of having successfully completed similar jobs by the bidder during last 7 years ending last day of month previous to the one in which applications are invited should be either of the following: -

a. Three similar completed jobs costing not less than the amount equal to 40% of the estimated cost. OR

b. Two similar completed jobs costing not less than the amount equal to 50% of the estimated cost. OR

c. One similar completed job costing not less than the amount equal to 80% of the estimated cost.

22. Similar means experience in supply & installation of Furniture items.

23. Manufacturer authorization certificate for this particular bid should be submitted with technical bid. Services & warranty will be provided by the bidder / manufacturer should be clearly mentioned in the authorization certificate.

**Registrar NIT Durgapur**

## **E-tendering Instructions to Bidders**

The bidders are required to submit soft copies of their bid electronically on the ITI e-Wizard Portal using valid Digital Signature Certificates. Below mentioned instructions are meant to guide the bidders for registration on the e-Wizard Portal, prepare their bids in accordance with the requirements and submit their bids online on the ITI e-Wizard Portal. For more information, bidders may visit the ITI e-Wizard Portal <https://mhrd.euniwizarde.com>

### **1. REGISTRATION PROCESS ON ONLINE PORTAL**

- a. Bidders to enroll on the e-Procurement module of the portal <https://mhrd.euniwizarde.com> by clicking on the link “Bidder Enrolment” as per portal norms.
- b. The bidders to choose a unique username and assign a password for their accounts. Bidders are advised to register their valid email address and mobile numbers as part of the registration process. These would be used for any communication from the e-Wizard Portal.
- c. Bidders must provide the details of PAN number, registration details etc as applicable and submit the related documents. The user id will be activated only after submission of complete details. The activation process will take minimum 24 working hours. After completion of registration payment, send your acknowledgement copy on our help desk mail id [ewizardhelpdesk@gmail.com](mailto:ewizardhelpdesk@gmail.com) for activation of your account.
- d. Bidders to register upon enrolment their valid Digital Signature Certificate (DSC: Class III Certificates with signing key and encryption usage) issued by any Certifying Authority recognized by CCA India with their profile.
- e. A bidder should register only one valid DSC. Please note that the bidders are responsible to ensure that they do not lend their DSCs to others, which may lead to misuse. Foreign bidders are advised to refer “DSC details for Foreign Bidders” for Digital Signature requirements on the portal.
- f. Bidder then logs in to the site through the secured login by entering their user ID/password and the password of the DSC / e-Token.

### **2. Tender Document Search**

- a. Various built-in options are available in the e-Wizard Portal to facilitate bidders to search active tenders by several parameters. These parameters include Tender ID, organization, location, date, value, etc.
- b. There is also an option of advanced search for tenders, wherein the bidders may combine a number of search parameters such as organization name, a form of contract, location, date, other keywords, etc. to search for a tender published on the Online Portal.
- c. Once the bidders have selected the tenders they are interested in, they may download the required documents/tender schedules. These tenders can be moved to the respective ‘**Interested Tenders**’ folder. This would enable the Online Portal to intimate the bidders through SMS / e-mail in case there is any corrigendum issued to the tender document.
- d. The bidder should make a note of the unique Tender ID assigned to each tender, in case they want to obtain any clarification/help from the Helpdesk.

### **3. Bid Preparation**

- a. Bidder should take into account any corrigendum published on the tender document before submitting their bids.
- b. Please go through the tender advertisement and the tender document carefully to understand the documents required to be submitted as part of the bid.
- c. Please note the number of covers in which the bid documents have to be submitted, the number of documents - including the names and content of each of the document that needs to be submitted. Any deviations from these may lead to rejection of the bid.
- d. Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender document/schedule and generally, they can be in PDF/XLS/PNG, etc. formats.

### **4. Bid Submission**

- a. In pursuance to Preference to Make in India Order no. P-45021/2/2017-PP (BE-II) dt. 28.5.2018, vide clause 3(a) issued by the Ministry of Commerce and Industry, Govt. of India, only local bidders are eligible to participate in this tender.
- b. Bidder to log into the site well in advance for bid submission so that he/she uploads the bid in time i.e., on or before the bid submission time. Bidder will be responsible for any delay due to other issues.
- c. The bidder to digitally sign and upload the required bid documents one by one as indicated in the tender document.
- d. Bidders must pay required payments (Form fee, EMD, Tender Processing Fee etc) as mentioned before submitting the bid
- e. Bidder to select the payment option mode as specified in the Schedule (EMD/FORM FEE Section) to pay the form fee/ EMD wherever applicable and enter details of the instrument.
- f. A standard BoQ format has been provided with the tender document to be filled by all the bidders. Bidders to note that they should necessarily submit their financial bids in the prescribed format and no other format is acceptable.
- g. The server time (which is displayed on the bidders' dashboard) will be considered as the standard time for referencing the deadlines for submission of the bids by the bidders, the opening of bids, etc. The bidders should follow this time during bid submission.
- h. All the documents being submitted by the bidders would be encrypted using PKI encryption techniques to ensure the secrecy of the data, which cannot be viewed by unauthorized persons until the time of bid opening.
- i. The uploaded tender documents become readable only after the tender opening by the authorized bid openers.

- j. Upon the successful and timely submission of bids, the portal will give a successful bid submission message & a bid summary will be displayed with the bid no. and the date & time of submission of the bid with all other relevant details.
- k. Kindly have all relevant documents in a single PDF file.
- l. The off-line tender shall not be accepted and no request in this regard will be entertained whatsoever.

### **Amendment of bid document**

At any time prior to the deadline for submission of proposals, the institutions reserve the right to add/ modify/ delete any portion of this document by the issuance of a Corrigendum, which would be published on the website and will also be made available to the all the Bidder who has been issued the tender document. The Corrigendum shall be binding on all bidders and will form part of the bid documents.

### **Instruction to Bidders**

- i. Process for Bid submission through ITI Ewizard portal is explained in Bidder Manual. Bidders are requested to download Bidder Manual from the home page of website (<https://mhrd.euniwizarde.com>). Steps are as follows:  
**(Home page> Downloads Bidder Manuals).**
- ii. The tenders will be received online through portal <https://mhrd.euniwizarde.com>. In the Technical Bids, the bidders are required to upload all the documents in .pdf format.
- iii. Possession of Valid Class III Digital Signature Certificate (DSC) in the form of smart card/ e-Token in the company's name is a prerequisite for registration and participating in the bid submission activities through <https://mhrd.euniwizarde.com>. Digital Signature Certificates can be obtained from the authorized certifying agencies, details of which are available on the web site <https://mhrd.euniwizarde.com> under the link 'DSC help'.
- iv. Tenderers are advised to follow the instructions provided in the 'User Guide and FAQ' for the e- Submission of the bids online through the ITI e-Wizard Portal for e-Procurement at <https://mhrd.euniwizarde.com>
  - a. The bidder has to **"Request the tender"** to portal before the **"Date for Request tender document"**, to participate in bid submission.
5. All entries in the tender should be entered in online Technical & Commercial Formats without any ambiguity.
6. Any order resulting from this e-tender shall be governed by the terms and conditions mentioned therein.
7. No deviation to the technical and commercial terms & conditions allowed.
8. The tender inviting authority has the right to cancel this e-tender or extend the due date of receipt of the bids.



**DETAIL TECHNICAL SPECIFICATION FOR 30.5 Mtr. FLAG MAST.**

**1.00 SCOPE:**

The scope of this specification covers the manufacture, transport, installation, testing and commissioning of the complete Flag system, using Raising and Lowering type of Flag mast Towers, including the Civil Foundation Works. The University will only provide the feeder cable of required size up to the base compartment of the high mast.

**2.00 PRE-QUALIFICATION**

- i. Bidder should be Manufacturer or Authorized dealer/ contractor of an OEM.
- ii. Bidder should supply Material from an OEM and the proof of OEM the same should be enclosed.
- iii. OEM itself should have own experience for designing, manufacturing and supplying of minimum 05 Flag mast with minimum height 30.5 Mtr.
- iv. Manufacturer should have valid ISO 9001, 14001, OSHAS 18001, ISO 3843 for their Indian manufacturing plant and have to be submitted along with technical bid.
- v. Manufacture should have their own design cell to carry out the structural calculation of such high mast.
- vi. Detail structural & foundation calculation / design should be submitted to authority before execution of work.

**3.00 APPLICABLE STANDARDS:**

<b><u>Code No.</u></b>	
1. TR. No. - 7	High Masts for Lighting and CCTV (2000 edition) of ILE, U.K,
2. SABS 0225:1991	High Mast natural frequency calculation
3.IS 875 Part – 3	Wind Loading (Durgapur West Bengal)
4.BS EN 10025:1993	High Tensile Steel Sheets
5.IS 2062	Mild Steel
6.BS EN ISO 1461	Galvanization
7.IS 3459 / 2266	Stainless steel Wire rope
8. IS 325	Motor

#### **4. FLAGMAST:**

##### **4.01 Structure:**

The Flag mast shall be of continuously tapered, polygonal cross section, 20 sided, presenting a good and pleasing appearance and shall be based on proven In-Tension design conforming to the standards referred to above to give an assured performance and reliable service.

##### **4.02 Construction:**

The mast shaft shall be manufactured from high tensile steel plates confirming to BS EN 10025 having minimum yield strength of 355N/Sq. mm. Each mast shaft section shall have only one longitudinal weld and without any circumferential weld joint. Sections with more than one longitudinal weld shall not be accepted. The mast base flange shall be free from any lamination or incursion and provided with supplementary gussets between the bolt-holes to ensure elimination of helical stress concentration.

The minimum A/F dimension of top shall be 150 mm and bottom as per the design and safe structure calculation. Design certificates and warranty should be provided for minimum 25 years. The minimum section length except for the top section shall be 10.98 m and top shall depend on the length required to make the specified height. The masts sections shall be joined at site by slip-stress-fit method and minimum overlap distance shall be 1.5 times the diameter at penetration.

A door reinforced with welded steel section, vandal resistant, weather proof with Allen bolts and pad locking facility of minimum dimension 1250 mm x 250 mm shall be provided at a height 2 times the width of door from the base of mast to provide clear access to base compartment equipment's winch, motor, cable, connector etc.

For the environmental protection of the mast, the entire fabricated mast shall be hot dip galvanized internally and externally in single dip having a uniform average thickness of 85 microns for plates more than 5 mm and 70 microns for 5 mm or less thickness. Manufacturer of Flag mast, Octagonal poles and Luminaires should preferably be same for easy maintenance

##### **4.03 Dynamic Loading for the Mast:**

The mast structure shall be suitable to sustain an assumed maximum reaction arising from a wind speed as per IS 875 (three second gust), and shall be measured at a height of 10 meters above ground level. The design life of the mast shall be 25 years. The force co-efficient taken for design of the polygonal structure is to be established from the wind tunnel test data but should not be less than the codal value.

**4.05 Raising and lowering mechanism:**

**4.05.01 Winch:**

The double drum winch shall be completely self-sustaining without the need for brake shoe, springs or clutches and self-lubricating type by means of an oil bath. The worm gear ratio shall be 53:1 and safe working load 750 Kg. The drums are to be grooved to provide perfect seat for stable and tidy rope lay and arrangement for distortion free rope end termination.

The winch shall have provision to operate manually by a handle or electrically through power tool. The capacity, operating speed, safe working load, recommended lubrication and serial number of the winch shall be marked on each winch.

The winch shall be type tested through reputed institutions like IIT as consultants and the type test report shall be submitted along with offer. A test certificate is to be submitted along with supplies.

**4.05.2 Head Frame:**

The hot dip galvanized head arrangement is to be designed as a receiving the flag wire rope & addition to this to stand by rope for flag & additional safety rope for man rider (Not part of supply and to be ordered separately). The LM6 Aluminum pulleys with bush bearing mounted through stainless steel shaft shall be suitable to accommodate wire ropes to be provided.

**4.05.3 Wire Ropes:**

The galvanized wire ropes shall be in 7/19 construction with central core in the same material of 6 mm diameter. The breaking load of each rope shall not be less than 2350 Kg giving a factor of safety of over 5 for the system at full load as per the TR-7. The end construction of rope for the winch drum shall be fitted with talurit and for two continuous ropes the end termination in luminary's carriage shall be with stainless steel thimble and copper splicing and for others with stainless steel thimble and bull dog grips.

**4.06 Electrical System, Cable and Cable Connections:**

The power cable from base compartment to junction box at the top shall be 1.1 KV grade PVC insulated, PVC sheathed copper conductor of size minimum 3 core x 1.5 sq. mm. Wiring from junction box to Aviation Light is to be done using 3 core 1.5 sq. mm PVC insulated, PVC sheathed, copper conductor flexible cable.

Suitable arrangement is to be provided in the base compartment to receive and terminate incoming power cable and MCB in a box for isolation of incoming power supply.

**4.07 Power Tool for the Winch:**

Three phase, single speed, motor of rating suitable to hoist the flag mounted on adjustable plate to adjust the length of winch motor coupling chain is to be provided in base compartment.

Mechanical torque limiter is to be mounted on motor shaft to stop transmission of motion from motor to winch in case of excess load and thus prevent the damage to winch and breakage of rope.

**4.08 Decorative Finial**

One number of FRP ornamental finial (DOME) shall be provided for each FLAG mast on the head arrangement is to be provided.

**4.09 Aviation Obstruction Light**

Supply of Single dome aviation obstruction lights of type LED AOL, Make shall be ISO standard.

**4.10 Earthing Terminals:**

Earth terminal using 12 mm diameter hot dip galvanized bolts shall be provided on the door stiffener of the mast for lightning and electrical earthing of the mast.

**4.11 Control Box / Panel**

Each mast shall be provided with a control box with 32A TPN MCB incomer, power tool control with 2 no 9A contactors and raise lower push button, Incoming 16 sq. mm and outgoing 4 sq. mm terminals.

**4.12 Incoming Power Cable**

Power cable of suitable size up to the feeder pillar from supply point shall be provided by NIT Durgapur.

**5.00 Luminaries**

The flood light luminaries 300 – 350 Watt LED type having more than 100 Lumen / W output. This Flood light shall be installed on 5 mtr galvanized octagonal poles with supply & laying of 3 Core x 2.5 Sq mm Copper cable for the individual wiring of the Luminaire.

**5.11 Octagonal Poles**

5 mtr. High hot dip galvanized octagonal poles for installing the flood light to illuminate the flag in dark.

**6.00 Makes for Flag Mast, Octagonal Poles & Luminaires**

BAJAJ / Transrail / Valmont / Lysaught

**7.00 PU Painting**

Flag mast shall be finished with Polyurethane (PU) paint over the galvanized surface after application of Etch Primer coat. PU Paint should be done at manufacturer's works, and certificate from manufacturer for same should be enclosed in the bid.

**8.00 FLAG**

Supply of national flag of size 20' x 30' in 100% Knitted Polyester (140 / 160 gsm), with reinforced super-strong nylon webbing on all 3 sides & rope/toggle sleeve.

**TECHNICAL DATA SHEET  
FOR 30.5 MTR FLAG MAST@ 180km/hr**

**HIGH MAST SYSTEM**

Approved Make	Bajaj / Transrail / Valmont / Lysaught
Height of mast	: <b>30.5 Meter,</b>
No. of sections	: Three
Material construction	: <b>S 355 grade as per BS-EN10 025</b>
Base dia. and top diameter (A/F)	: Top : 150 mm, Bottom: 540 mm
Plate thickness	: Top: 3 mm, Middle: 4 mm, Bottom: 4 mm
Cross section of Mast	: 20 side polygon.
Standard for of galvanisation	: As per BS EN ISO 1461
Size of opening and door at base	: 1200 x 300 mm 730 mm
Diameter of base plate	: 30 mm
Thickness of base plate	: G.I single spike of length 1200 mm
Lightning protection finial	: <b>As per IS 875</b>
Max. wind speed	: 12 nos.
Number of foundation bolts	: 650 mm
PCD of foundation bolts	: TS 600 / 30 mm dia / 850 mm long
Type / diameter / length of foundation bolts	: Double drum, SWL 750 Kg
<b>WINCH / POWER TOOL</b>	: Integra 1 Motor 2 HP
Type / SWL of winch	: HP
Method of operation	: 6 Pole, Single speed
Motor capacity	: With mechanical tripping facility
No of speeds	:
Torque limiter	:

Signature & Seal of the bidder

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**GENERAL:**

1. All materials required for the job will have to be arranged by the contractor meeting the relevant codes specifications.
2. The contractor will have to make his own arrangement to transport the required materials outside and inside the working place and leaving the premises in a neat and tidy condition after the completion of the job to the satisfaction of the Institute Authorities.
3. The contractor will have to arrange for safe keeping of his materials and should provide necessary security arrangements for safe guarding the materials. NIT Durgapur will not be responsible for any claims with regard to this.
4. The tenderers are advised to visit the site and get acquainted with the site conditions. NIT Durgapur will not provide any Roads, infrastructure such as water, etc. at site. Only electric connection may be provided on payment basis as per Institute rule. Vendor has to make their own arrangements for transportation of material, movement of heavy equipment at site.
5. The tenderers should note the site conditions before quoting. The site will be offered on AS IS WHERE IS for the execution of this job and it will be sole responsibility of the vendor to ensure that they abide by the various rules. Regulations, bye-laws and other statutory requirements etc. Imposed by the Government / semi-Government and / or other local authorities governing execution of this job.
6. When the person signing the tender is not sole proprietor the necessary Power of Attorney authorizing the person to act on behalf of the proprietor or Organization should be produced / attached with the tender in the Unpriced Bid.
7. The tenderers should study the various tender conditions / documents etc. carefully before submitting their offers. If there are any doubts, they should get clarifications from NIT Durgapur in writing but this shall not be a justification for submission of late tenders or extension of due date of the tender.
9. As far as possible the tenderers should endeavor not to stipulate any counter terms / conditions or modifications of tender clauses and should quote strictly as per tender conditions. This will assist in proper evaluation of each offer.
10. NIT Durgapur reserves the right to reject offers not meeting its technical requirements and commercial conditions.
11. NIT Durgapur reserves the right to accept any tender in whole or in part or reject any or all tenders without assigning any reason.

**12. Disputes and Arbitration.**

- 12.1 If any dispute or difference of any kind what-so-ever shall arise between the NIT Durgapur / its authorized representative and the contractor in connection with or arising out of this contract for the execution of work there under will be settled within the Jurisdiction of Durgapur Court only.
- 12.2 Whether before its commencement or during the progress of work or after the termination, abandonment or breach of the contract, it shall in the first instance, be referred for settlement to the Registrar of NIT Durgapur and he shall, within a period of sixty days after being requested in writing by the contractor to do so convey his decision to the contractor. Such decision in respect of every matter so referred shall, subject to arbitration as herein after provided, be final and binding upon the contractor. In case the work is already in progress, the contractor shall proceed with the execution of the work on receipt of the decision of the Registrar as aforesaid will all due diligence, whether any of the parties requires arbitration as herein after provided or not.
- 12.3 If the Registrar has conveyed his decision to the contractor and no claim for arbitration has been filed by the contractor within a period of sixty days from the receipt of the letter communicating the decision, the said decision shall be final and binding upon the contractor and will not be subject matter of arbitration at all.
- 12.4 If the Institute fails to convey his decision within a period of sixty days after being requested as aforesaid the contractor may within further sixty days of the expiry of the final sixty days from the date on which the said request was made by the contractor refer the dispute for arbitration as herein after provided.
- 12.5 All disputes or differences in respect of which the decision is not final and conclusive shall at the request of either party made in a communication sent through registered A.D. post be referred to the sole arbitration of the Technical Advisor(civil) of NIT Durgapur as such at the time of reference unless debarred from acting as an Arbitrator by an order of NIT Durgapur in which event, the Director shall appoint any other technical officer from the persons already on the panel of NIT Durgapur to act as arbitrator, on receipt of request from either party.
- 12.6 Employer of work shall have the authority to change the arbitrator on an application by either the contractor or the Engineer-in-charge requesting change of the arbitrator giving reasons thereof, either before the start of the arbitration proceedings or during the course of the proceedings. The arbitration proceedings would stand suspended as soon as an application for change of Arbitrator filed before the Employer and a notice thereof is given by the applicant to Arbitrator.



The Employer after hearing both the parties may pass a speaking order rejecting the application or accepting to change the arbitrator simultaneously, appointing a technical officer from the persons already on the panel of NIT Durgapur to act as arbitrator, on receipt of request from either party. The new Arbitrator so appointed may enter upon the reference a fresh or he may continue the hearings from the point these were suspended before the previous Arbitrator.

- 12.7 The reference to the Arbitrator shall be made by the claimant party within one hundred twenty days from the date of dispute of claim arises during the execution of work. If the claim pertains to rates or recoveries introduced in the final bill the reference to the Arbitrator shall be made within six calendar months from the date of payment the final bill to the contractor or from the date of registered notice is sent to the contractor to the effect that his final bill is ready by the Engineer-in-charge (whose decision in this respect shall be final and binding) whichever is earlier.
- 12.8 It shall be an essential term of this contract that in order to avoid previous claims, the party invoking arbitration shall specify the disputes on facts & calculations stating the amount claimed under each claim & shall furnish a "deposit-at-call" for ten percent of the amount claimed, on a scheduled bank in the name of the Arbitrator, by his official designation who shall keep the amount in deposit till the announcement of Award. In the event of award in favour of the claimant, the deposit shall be refunded to him in the proportion to the amount awarded with respect to the amount claimed & the balance, if any, shall be forfeited & paid to the other party.
- 12.9 The provisions of the Indian Arbitration Act, 1996 or any other statutory enactment there under or modifications thereof and for the time being in force shall apply to the arbitration proceedings under this clause.
- 12.10 The Arbitrator shall award separately giving his award against each claim and dispute and counter claim raised by either party giving reasons for his award. Any lump sum award enforce able shall not be legally enforceable.
- 12.11 The Venue of arbitration shall be the Jurisdiction of Durgapur Court only. The work under the Contract shall continue during the arbitration proceedings.
- 12.12 The stamp fee due on the award shall be payable by the party as desired by the Arbitrator and in the event of such party's default, the stamp fee shall be recoverable from any other sum due to such party under this or any other contract.
- 12.13 Neither party shall be entitled to bring a claim for arbitration, if is not field as per the time period already specified or within six months of the following:

- a) Of the date of completion of the work as certified by the Institute Authority or
- b) Of the date of abandonment of the work or breach of contract under any of its clauses or
- c) Of its non-commencement or no resumption or work within 10 days of written notice for commencement or resumption as applicable, or
- d) Of the cancellation, termination or withdrawal of the work from the contractor in whole or in part and/or revision for enclosure of the contract, or
- e) Of receiving an intimation from Institute Authority that the final payment due or recovery from the contractor had been determined, for purpose of payment adjustment whichever is the latest.

If the matter is not referred to the arbitration within the period prescribed above, all the rights and claims of the either party under the contract shall be deemed to have been forfeited and absolutely barred by time for arbitration and even for civil litigation.

12.14 No questions relating to this contract shall be brought before any civil court without first invoking and completing the arbitration proceedings, if the issue is covered by the scope of arbitration under this contract. The pending of arbitration proceedings shall not disentitle the Employer to terminate the contract and to make alternate arrangement for completion of the works.

12.15 The arbitrator shall be deemed to have entered on the reference on the day, he issues notices to the parties fixing the first date of hearing. The Arbitrator may from time to time with the consent of the parties enlarge the initial time for marking and publishing the award.

12.16 The expiry of the contractual time limit, whether originally fixed or extended, shall not invalidate the provisions of this clause.

**SPECIAL TERMS & CONDITIONS**

1. **COMPLETION PERIOD: 3 months** from the date of issue of approval of drawing.
2. **DEFECTS LIABILITY PERIOD:**
  - i). Pole: - 12 months warranty on Flag Mast Shaft & accessories from the date of commissioning.
  - ii). LED lights & Aviation light it will be comprehensive for 3 years.
  - iii). Successful bidder will also supply design certificate for 30.5 mtr Flag mast Pole for minimum 25 years.
3. **WATER:**

To be arranged by the contractor.
4. **POWER:**

Institute will provide on payment basis as per prevailing rate.
5. **CEMENT:**
  - a. Cement required for construction under the scope of the vendor shall be arranged by the contractor at his own cost.
  - b. For all computation purposes, the theoretical cement consumption shall be considered as per CPWD standards. Minimum Grade of Concrete should be M25, HySD=500.
  - c. The Penal rate for any under consumption of cement shall be Rs 12000/per MT.
  - d. All other costs e.g. stone chips, sand, potable water, shuttering, BFS, MUDMAT are to be borne by the contractor as well.
6. **LABOUR:**

Labour camp will not be permitted inside the plant premises. The contractor to make necessary arrangements elsewhere for the same.
- 7, **TIME EXTENSION:**

Time extension, if required on any account will have to be brought to the notice of NIT Durgapur at least 1 (one) month in advance from the date of scheduled job completion with proper details & justification.
- 8, All statutory registrations / licenses to be submitted to the Institute Authority prior to commence the works.
- 9, **REPORT OF ACCIDENT**

In case of any accidents, the contractor shall report the incident as required by Factories rules to the concerned authorities, He will be fully responsible for the same including any expenses for medical treatment or compensation or any other charges required to be borne.
10. **TENDER QUANTITIES:**

Tender quantities appearing in the schedule of rates are only indicative quantities, exact quantities of each item shall be ascertained by the Contractor, only such ascertained quantities shall be procured.

**TECHNICAL DATA SHEET FOR 30.5 MTR. HIGH / FLAG MAST & COMPONENTS (TO BE FILLED BY THE VENDORS)**

<b>1. HIGHMAST STRUCTURE</b>		:	VENDOR'S
CONFIRMATION / REMARKS Height of mast ( mtr )	30.5		mtr
Permissible Projected area		:	
<b>Makes</b>		:	
Material construction		:	BS-EN 10025 (old BS
4360 ) Thickness (in mm )		:	Top --- ---
		:	Middle
		:	Bottom
Cross section of Mast in Polygon		:	(number of sides)
Length of individual sections (in m)		:	Top
			Middle
			Bottom
Base dia and top diameter		:	Base diameter ( in mm ) –
		:	Top diameter (in
mm)— Type of Joint		:	Stress fit side joint
Length of overlap ( Mtr )		:	
Metal protection treatment for Mast section		:	Hot Dipped Galvanised
Thickness of 20alvanized20on (min)		:	Micron : Top -- -
			Micron Middle
			Micron : Bottom
Type of locking arrangement and door panel			
Size material & thickness of: -----	Amps TPN MCB + ELCB cable termination box		
Size of base plate (mm)",		:	Dia-----mm
Diameter and thickness		:	Thick-----mm
Size of anchor plate &thickness		:	-- -- -- mm (20alvani ) )
Detail of Template		:	
Weight in Kgs. Of 30 Mtr. Mast including base plate door, head frame)		:	
Lightning protection		:	

## **2. DYNAMIC LOADING AS PER PREVAILING AT SITE**

Max. wind speed : As per IS 875; 1987

Height of above ground

level these Two factors are  
measured

: . Factor of safety for wind load :

:

Factor of safety for other load

:

Factor of safety for tower

## **3. FOUNDATION DETAILS**

### **Type of foundation**

: The bidder will get the bearing capacity tested, before designing the foundation. The design calculation shall also be supplied by the bidder. The design can be got rechecked by the university & if there is any expenditure on this account the same shall be borne by the bidder.

Design Load bearing capacity:

Design safety factor:

Considered wind pressure :

Considered wind speed ( km/hour) :

Depth of foundation :

Average soil bearing capacity :

Numbers of foundation bolts :

DPC of foundation bolts :

Type of foundation bolts :

Bolt diameter :

**4. WINCH**

Make of winch  
Number of drums /winch :  
Gear Ratio :  
Capacity :  
Operating speed :  
Individual drum rotation :  
Method of operation :  
Lubrication arrangement  
Type of Lubricant: :  
Gear Material:  
Tested Load per drum (Kg)  
Factor safety:

**5. STAINLESS STEEL WIRE ROPE**

Make :  
Grade :  
Number of ropes ;  
Construction :  
  
Centre core material  
Diameter (mm) :  
Thimbles &Terminals :  
Breaking load capacity :  
Factor safety  
( specified not less than 5 )

Signature & Seal of the bidder

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**5. POWER TOOL**

- a) Model (portable external / integral type ) :
- b) Input supply :
- c) Wattage / HP :
- d) Number of speeds :
- Reversible / non
- e) reversible :
- f) Operating speed -
- g) Remote control switch
  - i) Type :
  - ii) Length of control cable :
- h) Max. time taken for –
  - i) Raising :
  - ii) Lowering :

**6.. TORQUE LIMITER**

- a) Lifting capacity :
- b) Adjustable / non – adjustable :

Signature & Seal of the bidder

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**BILL OF QUANTITIES**

<b>Sl. No</b>	<b>Description</b>	<b>Unit</b>	<b>Qty.</b>
<b>1</b>	Construction of shallow foundation with M25 grade concrete for the flag mast considering the safe soil bearing capacity at site at the time of execution of work.	<b>Job</b>	<b>1</b>
<b>2</b>	Supply, Installation, Testing & Commissioning of 30.5 Mtr. Flag mast. Mast shaft shall be in three sections, hot dip galvanized and suitable for wind velocity as per IS 875. It includes a special type of Dome and including. PU Painting of Flag Mast shaft with a coating of etch primer, primer and PU paint.	<b>Each</b>	<b>1</b>
<b>3</b>	Supply, Installation, Testing & Commissioning of foundation bolts manufactured from special steel along with nuts, washers, anchor plates and templates.	<b>Set</b>	<b>1</b>
<b>4</b>	Supply, Installation, Testing & Commissioning of System for Raising & Lowering of Flag. It shall have double drum winch, 6 mm dia 24alvanized wire rope and integral power tool for the raising and lowering of Flag. Suitable control panel shall be provided for reversing operation of Power tool motor.	<b>Each</b>	<b>1</b>
<b>5</b>	Supply, Installation, Testing & Commissioning of LED single dome System and Aviation Obstruction light with 3C x 2.5 Sqmm Cu armored cable.	<b>Each</b>	<b>4</b>
<b>6</b>	Supply, Installation, Testing & Commissioning of LED 300 to 350 watt Flood Light IP 65 or suitable for Illumination of Flag mast.	<b>Each</b>	<b>2</b>
<b>7</b>	Supply, Installation, Testing & Commissioning of 5M high hot dip 24 galvanized octagonal pole on suitable foundation to mount 2 nos. LED flood light fittings at top & control gear box mounting arrangement at bottom.	<b>Each</b>	<b>4</b>
<b>8</b>	Supply, Installation, Testing & Commissioning of foundation bolts manufactured from special steel along with nuts, washers etc. (For 5M Pole)	<b>Set</b>	<b>2</b>
<b>9</b>	Supply, of National Flag size 20X30Ft, made with shiny knitted polyester, 160 GSM ( C )	<b>Each</b>	<b>2</b>
<b>10</b>	Installation, Testing & Commissioning of National Flag size 20X30Ft, made with shiny kintted polyester, 160 GSM ( C )	<b>Each</b>	<b>1</b>
<b>11</b>	Supply, Installation, Testing & Commissioning of GI pipe earthing for Flag mast with 2.5 M long 40 mm dia GI Pipe including connection to High mast earth terminal with 25 x 3 mm GI flats with all materials and labour. (2nos per mast required)	<b>Each</b>	<b>2</b>
<b>12</b>	Supply, Installation and testing of Aviation obstruction light of ISO standard	<b>Each</b>	<b>1</b>

Selection of successful bidder will be finalized based on the lowest rate quoted in total for all the items.

**(Signature of the agency with seal)**

Signature & Seal of the bidder

Contd.....P/25



We unconditionally and irrevocably undertake to pay to the Employer on an immediate **PERFORMANCE BANK GUARANTEE OF CONTRACTOR Bank Guarantee No.:** \_\_\_\_\_ **dated :** \_\_\_\_\_  
**Issuer of Bank Guarantee :**

\_\_\_\_\_ (name of the bank)  
\_\_\_\_\_  
\_\_\_\_\_

(hereinafter referred to as the “Bank”)

**Beneficiary of Bank Guarantee :**

Registrar NIT Durgapur

**Nature of Bank Guarantee :**

Unconditional and irrevocable Bank Guarantee.

**Context of Bank Guarantee :**

Contract Agreement dated \_\_\_\_\_ (hereinafter referred to as the “Agreement”), executed between the Employer acting through the Registrar NIT Durgapur (“hereinafter referred to as the “Employer”) and (hereinafter referred to as the “Contractor”) for the construction of **“Supply, Installation, Commissioning & Testing of 30.5 Mtr Flag Mast at NIT Durgapur.”**

Provided however, such context of the Bank Guarantee or reference to the Agreement in this Bank Guarantee shall in no manner be relied upon at any stage to adversely affect or dilute the unconditional and irrevocable nature of this Bank Guarantee. The titles of this Guarantee i.e. “Performance Bank Guarantee” shall in no manner and at no stage be relied upon to adversely affect or dilute the unconditional and irrevocable nature of this Bank Guarantee.

Operative part of the Bank Guarantee:

At the request of the contractor, we \_\_\_\_\_ (name and address of the bank), (hereinafter referred to Bank) do hereby unconditionally and irrevocably affirm and undertake that we are the Guarantor and are responsible to the Employer i.e. the responsible to the Employer i.e. the beneficiary on behalf of the contractor, up to a total sum of ₹ \_\_\_\_\_ (Rupees \_\_\_\_\_ only), such sum being payable by us to the Employer immediately upon receipt of first written demand from the Employer and without any cavil or argument or delaying tactics or reference by us to Contractor and without any need for the Employer to convey to us any reasons for invocation of the Guarantee or to prove the failure to perform on the part of the contractor or to show grounds or reasons for the demand or the sum specified therein, the entire sum or sums within the limits of ₹ \_\_\_\_\_ (Rupees \_\_\_\_\_ Only).

We hereby waive the necessity of the Employer demanding the said amount from Contractor prior to serving the Demand Notice upon us.

Signature & Seal of the bidder

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We further agree and affirm that no change or addition to or other modification to the terms of the Agreement, shall in any way release us from any liability under this unconditional and irrevocable Guarantee and we hereby waive notice of any such change, addition or modification. We further agree with the Employer that the Employer shall be the sole and the exclusive judge to determine that whether or not any sum or sums are due and payable to him by Contractor, which are recoverable by the Employer by invocation of this

We unconditionally and irrevocably undertake to pay to the Employer on an immediate Guarantee.

This Guarantee will not be discharged due to the change in the constitution of the Bank or the Contractor. We undertake not to withdraw or revoke this Guarantee during its currency/ validity period, except with the previous written consent of the Employer through Registrar, NIT Durgapur on behalf of NIT Durgapur.

We unconditionally and irrevocably undertake to pay to the Employer through Registrar NIT Durgapur on behalf of the NIT Durgapur any amount so demanded not exceeding Rs. \_\_\_\_\_ Lakhs (Rupees \_\_\_\_\_ Only) notwithstanding any dispute or disputes raised by Contractor or anyone else in any suit or proceedings before any dispute review expert, arbitrator, court, tribunal or other authority, our liability under this Guarantee being absolute, unconditional and unequivocal. The payment so made by us under this Guarantee to the Employer, shall be a valid discharge of our liability for payment under this Guarantee and the Contractor shall have no claim against us for making such payment.

This unconditional and irrevocable Guarantee shall remain in full force and effect and shall remain valid until \_\_\_\_\_.

Notwithstanding any contained herein:

Our liability under this Bank Guarantee shall not exceed Indian \_\_\_\_\_ (Rupees \_\_\_\_\_ Only).

This unconditional and irrevocable Bank Guarantee shall be valid w.e.f. \_\_\_\_\_ to \_\_\_\_\_.

We are liable to pay guaranteed amount or any part thereof under this the unconditional and irrevocable Bank Guarantee only and only if the Employer through Registrar, on behalf of NIT Durgapur serves upon us a written claim or demand on or before \_\_\_\_\_.

*Authorized Signatory For Bank with Seal*

Signature & Seal of the bidder

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**AGREEMENT**

This Agreement made this ..... day of ..... between ..... (hereinafter called the "Contractor" of the first part and National Institute of Technology Durgapur through the Registrar (hereinafter called "The University") of the other part.

Whereas the Contractor has offered for the work of **"Supply, Installation, Commissioning & Testing of 30.5 Mtr Flag Mast at NIT Durgapur"** and the University has accepted his tendered offer for the execution of afore mentioned work. NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

1. In this agreement, words and expressions shall have the same meanings as are respectively assigned to them as per the general conditions of contract enclosed herewith.
2. The following documents shall be deemed to form and be construed as part of this Agreement:
  - (i) The "NOTICE INVITING TENDER" AND "INSTRUCTIONS TO TENDERERS" enclosed as ANNEXURE - 'I' with this agreement.
3. The work will be executed strictly according to specifications and sample and the schedule of items of work as per quantities specified therein at the accepted rates.
4. All correspondence and modifications, if any and acceptance letter will from part of this agreement.
5. The University hereby covenants to pay the Contractor, in consideration of completion of works, the price in the manner as specified in this Agreement.

IN WITNESS THEREOF THE PARTIES HERE TO SET THEIR RESPECTIVE HANDS AND SEALS ON THE DAY AND YEAR MENTIONED ABOVE IN THE PRESENCE OF WITNESSES AS UNDER:

**Name and Address of the Contractor**

**Signature of Contractor**

.....  
.....

.....  
.....

Signed sealed and Delivered by ..... in the capacity of .....

**In presence of (Name and Address)**

**Witness No. 1**

.....  
.....

**Witness No. 2**

.....  
.....

Registrar  
For & on behalf of the  
National Institute of Technology Durgapur)

Signature & Seal of the bidder